

IOWA DEPARTMENT OF NATURAL RESOURCES

Leading Iowans in Caring for our natural resources

What is Sustainable Materials Management



• SMM seeks the most productive use of resources through the entire life cycle, while waste management seeks to minimize and/or manage wastes or pollutants.

Sustainable Material Management's Life-cycle Perspective. US EPA. 2018, August 14)

https://www.epa.gov/smm/sustainable-materials-management-basics.

Typical Waste Management Hierarchy



Project Phases

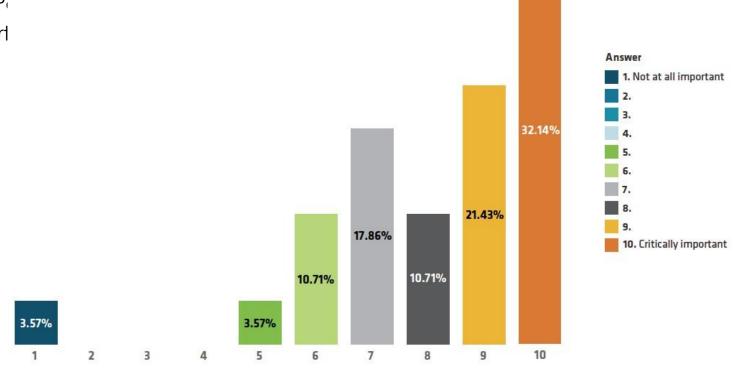
Phase I (Completed): What is SMM and should we do it?

Phase II (Active): Prioritization and timing of what we should do and how we should accomplish it

Phase III (Future): Ongoing Implementation

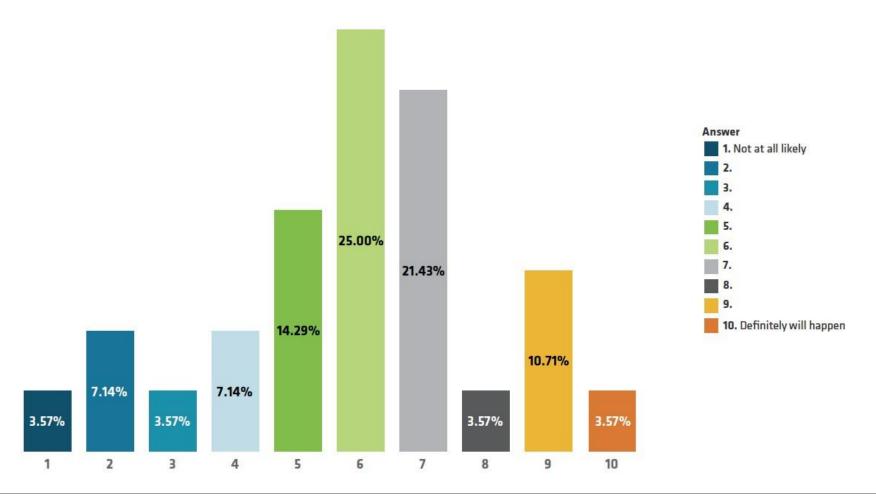
Phase I- Visioning

- Convened stakeholders
- Internal DNR P_i
- Visioning effort
- Surveys



How important do you think it is for lowa to transition from an integrated solid waste management policy to a sustainable materials management policy? (Aiming for the highest and best use of discarded materials and improved environmental protection)

Phase I (Completed) Feasibility Results



Phase II Goal

Establish a clear direction for implementing an SMM system with immediate, medium and long-term strategies

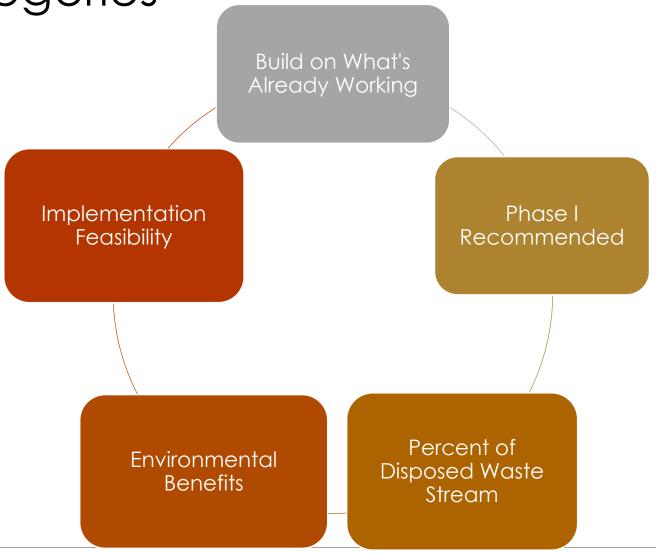
Process

Define specific strategies Identify Legislation implementation Select specific Policies timeline, material types responsible Programs within each party, and • Infrastructure category performance Funding metrics mechanism

Stakeholders Reviewed Material Categories

	Plastics
	Metals
St.	Fibers
	Organics
	Glass
	Construction and Demolition Debris
Household Hazardous Materials/Universal Wastes	
	Durable Goods
	Renewable Energy Equipment

Criteria for Selection of Materials Categories



Materials Selected

Organics & Fibers

Edible Food

Pre-Consumer Spoiled Food

Compostable/AD Paper, Food and Yard Waste **Plastics**

Single-Use PET Water Bottles

Plastic Film/Bags

Polystyrene (Styrofoam) Renewable Energy Equipment

Wind Turbines

Solar Panels

Storage Batteries

Construction & Demolition

Interior Building Components

Roofing Materials

Drywall, Plaster and Gypsum Board

Treated and Untreated Wood

Progress To Date

Two stakeholders meetings

Three subcommittee meetings

Focus on exchange of information

- From Project Team to Subcommittee:
 - What is SMM?
 - How is it already occurring in Iowa?
 - What are other states doing successfully or not?
- From Subcommittee to Project Team
 - How lowa entities operate
 - Existing programs
 - Challenges and road blocks

Presentations from subject matter experts

Research on existing Life Cycle Assessments

Evaluation of potential strategies for development and consideration

Organics and Fibers



Immediate (0-3 years) Medium (4-10 years)

Long-Term (11+ years)

Create smaller size options for menu items -K-12/Institutions

Create smaller size options for menu items - restaurant

Standardize food label

dates to two phases (quality and safety risk)

Change K-12 lunch programs (effort already performed)

Sell pre-measured ingredients for specific meals

Education and outreach campaigns to reduce plate waste on

buffets

Optimize food packaging size and design for complete consumption

Advocacy campaigns to raise awareness and educate consumers about ways to prevent food waste and environmental effects

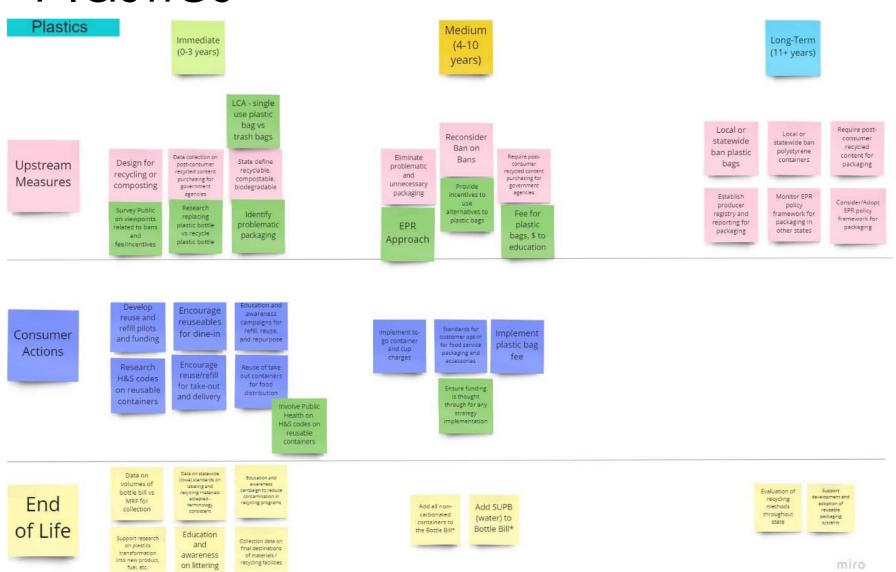
> Work with restaurant industry and quick service restaurants to encourage smaller portions

Flat service rate for waste collection plus a charge by weight Explore curriculum that connects food waste with environmental challenges

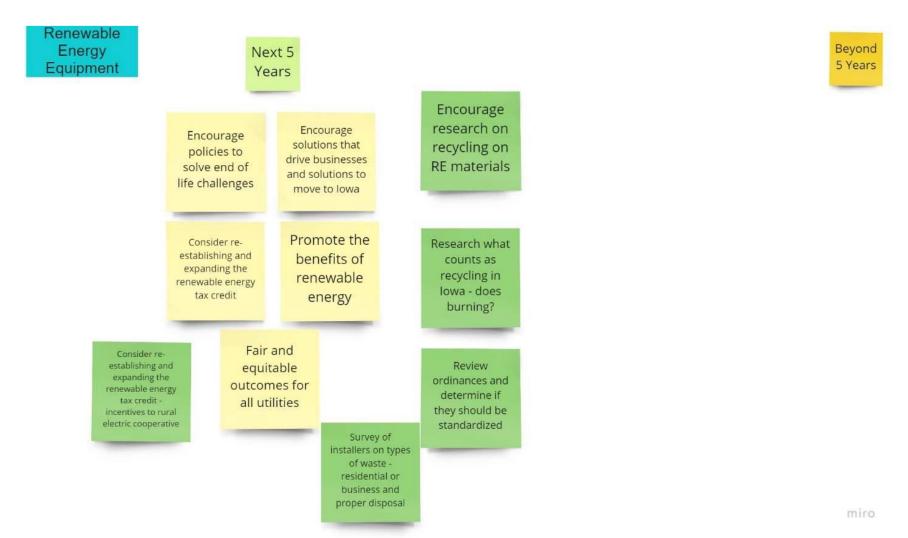
Work with USDA to evaluate rules that minimize food waste and allow for unconsumed food to be taken home

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Plastics



Renewable Energy Equipment



Construction and Demolition Debris

C&D Medium Immediate (4-10 (0-3 years) years) Review and update Conduct LCAs and building codes for waste characterization government projects studies Upstream Measures Increase building Reduce sales tax on community's understanding recycled content of the impacts of building construction materials design, material use, and construction practices

Long-Term

(11+ years)

Review and update building codes for commercial and residential projects

Create multidepartmental task force on C&D

Educate consumers on deconstruction principals and practices Incentivize building repurpose and material reuse

Educate contractors concerning deconstruction and reuse resources

LCA For C&D Waste Materials for

Construction and Demolition Debris



Develop sample project bid language supporting green building practices

Increase building community's awareness and support of IWE services Lumber yards (alternative outlets) outlets for reused materials

Builder/contractor certification program - tie to national Assess and report impacts of new construction and major renovation projects

Implement green building practices

Communicate with cities on revising permits

LCA For C&D Waste Materials for public projects cities/countles for commercial projects



Support donation and deconstruction facilities -Root cause analysis of previous facilities in lowa

Remove barriers to development of C&D processing facilities to "Shall" for RAS 5%

Pose the question to

DOT of changing "May"

Incentivize development of C&D facilities Adopt recycling certification institute methods

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Next Steps

Series of additional subcommittee meetings

Evaluate potential strategies

- Infrastructure
- Regulations
- Education
- Funding

Conduct additional research

Updates and recommendations to stakeholder group

End goal:
Understanding of
the strategies
needed for SMM
to be viable and
beneficial in Iowa